



6712-01

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 73

[MM Docket No. 99-325; DA 11-1832]

FM Asymmetric Sideband Operation and Associated Technical Studies

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: In this document, the Federal Communications Commission seeks comment on a request by certain private parties, identified below, that the Commission authorize voluntary asymmetric digital sideband power for FM stations. This document establishes a period for public comment on this request and on two related technical reports.

DATES: Comments for this proceeding may be filed on or before **[INSERT DATE 21 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]** and reply comments may be filed on or before **[INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: You may submit comments, identified by MM Docket No. 99-325, by any of the following methods:

- Federal eRulemaking Portal: <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Federal Communications Commission's Web Site: <http://www.fcc.gov/cgb/ecfs/>. Follow the instructions for submitting comments.

- Email: ecfs@fcc.gov. Include the docket number in the subject line of the message. See the **SUPPLEMENTARY INFORMATION** section of this document for detailed information on how to submit comments by email.
- Mail: 445 12th Street, SW, Washington, DC 20554.
- People with Disabilities: Contact the FCC to request reasonable accommodations (accessible format documents, sign language interpreters, CART, etc.) by e-mail: FCC504@fcc.gov or phone: 202-418-0530 or TTY: 202-418-0432.

For detailed instructions for submitting comments and additional information on the rulemaking process, see the **SUPPLEMENTARY INFORMATION** section of this document.

FOR FURTHER INFORMATION CONTACT: Peter H. Doyle, Chief, Media Bureau, Audio Division, at (202) 418-2700; Susan Crawford, Ann Gallagher, or Charles Miller, Media Bureau, Audio Division, at (202) 418-2700.

SUPPLEMENTARY INFORMATION: This is a summary of a Public Notice released by the Media Bureau on November 1, 2011. The full text of this document is available for public inspection and copying during regular business hours in the Commission's Reference Information Center, Portals II, 445 12th Street, SW., Room CY-A257, Washington, DC 20554. The complete text of this document also may be purchased from the Commission's copy contractor, Best Copy and Printing, Inc., Portals II, 445 12th Street, SW., Room CY-B402, Washington, DC 20554, telephone (202) 488-5300, facsimile (202) 488-5563 or via email FCC@BCPIWEB.com. The full text may also be downloaded at <http://www.fcc.gov>. Pursuant to §§1.415 and 1.419 of the Commission's rules, 47 CFR 1.415, 1.419, interested parties may file comments and reply comments on

or before the dates indicated on the first page of this document. Comments may be filed using: (1) the Commission's Electronic Comment Filing System (ECFS), (2) the Federal Government's eRulemaking Portal, or (3) by filing paper copies. *See Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <http://www.fcc.gov/cbg/ecfs>, or the Federal eRulemaking Portal:

<http://www.regulations.gov>. Filers should follow the instructions provided on the Websites for submitting comments.

- For ECFS filers, in completing the transmittal screen, filers should include their full name, U.S. Postal Service mailing address, and the applicable docket number: MM Docket No. 99-325. Parties may also submit an electronic comment by Internet email. To get filing instructions, filers should send an email to ecfs@fcc.gov, and include the following words in the body of the message, "get form." A sample form and instructions will be sent in response.

- Paper Filers: Parties who choose to file by paper must file an original and four copies of each filing. Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail (although the Commission continues to experience delays in receiving U.S. Postal Service mail). All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission. The Commission's contractor will receive hand-delivered or messenger-delivered paper filings for the Commission's Secretary at 236 Massachusetts Avenue, NE, Suite 110, Washington, DC 20002. The filing hours at this location are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber

bands or fasteners. Any envelopes must be disposed of before entering the building.

Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743. U.S. Postal Service first-class mail, Express Mail, and Priority Mail should be addressed to 445 12th Street, SW, Washington, DC 20554.

- Copies of the reports and any subsequently filed documents in this matter may be obtained electronically at <http://www.fcc.gov/e-file/ecfs.html>, and in paper form from BCPI during normal business hours in the Commission's Reference Information Center located at 445 12th Street, SW, Room CY-A257, Washington, DC, 20554.
- Alternate formats of this Public Notice (computer diskette, large print, audio recording or Braille) are available to persons with disabilities by contacting the Consumer and Governmental Affairs Bureau at (202) 418-0530 or (202) 418-7365 (TTY).

Summary of Public Notice

On October 4, 2011, representatives of iBiquity Digital Corporation (iBiquity) and National Public Radio, Inc. (NPR) met with Media Bureau staff to discuss the possibility of permitting FM stations to operate with unequal digital sideband power levels. Concurrently, iBiquity filed a technical report that discusses the field performance of asymmetric digital sideband operation by FM stations. On October 24, 2011, NPR filed a report describing the results of field testing of asymmetric FM digital sidebands used in conjunction with the testing of newly-developed technology for reducing the peak-to-average power ratio in digital transmitters. Based on these reports, iBiquity and NPR requested that the Commission authorize voluntary asymmetric digital sideband power for FM stations. On November 1, 2011, the Media Bureau released the "November 1, 2011, *Public Notice*" soliciting comments on the iBiquity and NPR request and the two

related technical reports. Comment Sought on Request for FM Asymmetric Sideband Operation and Associated Technical Studies, MM Docket No. 99-325, Public Notice, DA 11-1832 (MB rel. Nov. 1, 2011).

The iBiquity and NPR request and the iBiquity and NPR technical studies are available electronically from the Commission's Electronic Comment Filing System under MM Docket No. 99-235 at <http://fjallfoss.fcc.gov/ecfs/comments/view?id=6016844127> and <http://fjallfoss.fcc.gov/ecfs/document/view?id=7021717638>, respectively; or from the Commission's duplicating contractor, Best Copy and Printing, Inc., 445 12th Street, SW, Room CY-B402, Washington, DC 20554, 1-800-378-3160. The Media Bureau seeks comment on the issues identified above. The Bureau also seeks comment on the Initial Regulatory Flexibility Analysis below. This action is taken under delegated authority pursuant to §§ 0.61 and 0.283 of the Commission's rules, 47 CFR 0.61, 0.283, and the Second IBOC Order (Digital Audio Broadcasting Systems and Their Impact on the Terrestrial Radio Broadcast Service, Second Report and Order, First Order on Reconsideration and Second Further Notice of Proposed Rulemaking, 22 FCC Rcd 10344, 10383, para. 99 (2007)).

Paperwork Reduction Act

The Public Notice tentatively concludes that it would be expedient to modify Form 335-FM (OMB control number 3060-1034), currently used for Digital Notifications, to accommodate requests for increased digital power and/or operation with asymmetric digital sideband power. The Public Notice also seeks comment on the process by which FM stations engaging in such operations would notify the Commission and how such notifications would be maintained in the Commission's electronic

databases. Thus, the proposal under consideration may result in a new or revised information collection requirement being adopted by the Commission when the final rules are adopted. If the Commission adopts any new or revised information collection requirement, the Commission will publish a separate notice in the Federal Register inviting the public to comment on the requirement, as required by the paper Reduction Act of 1995, Public Law 104-13 (44 U.S.C. 3501-3520). In addition, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. 3506(c)(4), the Commission seeks specific comment on how it might “further reduce the information collection burden for small business concerns with fewer than 25 employees.”

Ex Parte Rules

This proceeding will be treated as a “permit-but-disclose” proceeding subject to the “permit-but-disclose” requirements under § 1.1206(b) of the Commission’s rules (47 CFR 1.1206(b)). *Ex parte* presentations are permissible if disclosed in accordance with Commission rules, except during the Sunshine Agenda period when presentations, *ex parte* or otherwise, are generally prohibited. Persons making oral *ex parte* presentations are reminded that a memorandum summarizing a presentation must contain a summary of the substance of the presentation and not merely a listing of the subjects discussed. More than a one- or two-sentence description of the views and arguments presented is generally required. Additional rules pertaining to oral and written presentations are set forth in 47 CFR 1.1206(b).

Initial Regulatory Flexibility Analysis.

As required by the Regulatory Flexibility Act of 1980, as amended (RFA), 5 U.S.C. 603, the Commission has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the proposed rule as provided in the “Dates” paragraph of the item. The Commission will send a copy of the proposed rule, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA). In addition, the proposed rule and IRFA (or summaries thereof) will be published in the **Federal Register**.

A. Need For, and Objectives of, the Proposed Rules

This document seeks comment on the iBiquity and NPR request that the Commission authorize voluntary asymmetric digital sideband power for FM stations. Currently, FM stations may operate only with equal power levels on the upper and lower primary digital sidebands. In the *First IBOC Order (Digital Audio Broadcasting Systems and Their Impact on the Terrestrial Radio Broadcast Service*, First Report and Order, 17 FCC Rcd 19990 (2002)), the Commission authorized FM stations to commence hybrid digital broadcasting with digital effective radiated power of one percent (-20 dBc) of the analog carrier level. In authorizing in-band-on-channel (IBOC) operation for FM stations, the Commission observed: “The digital portion of the hybrid IBOC signal is transmitted on frequencies immediately adjacent to the main analog signal. Consequently,

minimizing interference to stations on first-and, to a lesser extent, second-adjacent channels poses the most serious analog compatibility challenge.”

Early experience with FM IBOC operation showed the one-percent digital power level to be insufficient to replicate analog coverage areas. In response to a request from a group of broadcasters, the Media Bureau issued its January 29, 2010, Order (Digital Audio Broadcasting Systems and Their Impact on the Terrestrial Radio Broadcast Service), Order, 25 FCC Rcd 1182 (MB 2010)), which authorized most FM stations to increase their digital power up to 6 dB (to -14 dBc) upon notification to the Commission, and some stations up to 10 dB (to -10 dBc) by filing an informal application demonstrating that certain contour non-overlap conditions are met with respect to other stations operating on the upper and lower first-adjacent channels.

A significant number of FM stations are currently precluded from taking advantage of the full 10 dB digital power increase permitted by the Order due to the presence of a nearby station on one but not both of the two first-adjacent channels. If asymmetric digital sideband operation is permitted, such stations could presumably increase their digital power on the sideband away from the limiting station. The two technical reports include data supporting iBiquity’s and NPR’s contentions that such operations may improve a station’s digital coverage without causing interference. By this November 1, 2011, Public Notice the Bureau seeks comment on the iBiquity and NPR request and the iBiquity and NPR technical reports.

B. Legal Basis

The authority for this proposed rulemaking is contained in sections 1, 2, 4(i), 301, 302, 303, 307, 308, and 309(j) of the Communications Act of 1934, as amended, 47 U.S.C. 151, 152, 154(i), 301, 302, 303, 307, 308, and 309(j).

C. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply

The RFA directs the Commission to provide a description of and, where feasible, an estimate of the number of small entities that will be affected by the proposed rules. The RFA generally defines the term "small entity" as encompassing the terms "small business," "small organization," and "small governmental entity." In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act. A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.

Radio Stations. A radio broadcasting station is an establishment primarily engaged in broadcasting aural programs by radio to the public.¹ Included in this industry are commercial, religious, educational, and other radio stations. Radio broadcasting stations which primarily are engaged in radio broadcasting and which produce radio program materials are similarly included. The SBA has established a small business size standard for this category, which is: firms having \$7 million or less in annual receipts.² According to BIA/Kelsey, MEDIA Access Pro Radio Analyzer Database, on November

¹ U.S. Census Bureau, 2007 NAICS Code Definitions for NAICS Code 515112 Radio Stations. <http://www.census.gov/naics/2007/def/ND515111HTM#N51512>

² 13 CFR 121.201, NAICS code 515112 (updated for inflation in 2008).

1, 2011, about 10,785 (97%) of 11,127 commercial radio stations have revenue of \$7 million or less and thus qualify as small entities under the SBA definition. Therefore, the majority of such entities are small entities. We note, however, that in assessing whether a business concern qualifies as small under the above size standard, business affiliations must be included. Many radio stations are affiliated with much larger corporations having much higher revenue. Our estimate, therefore, likely overstates the number of small entities that might be affected by any ultimate changes to the rules and forms.

D. Description of Projected Reporting, Recordkeeping and Other Compliance Requirements.

In the *Second IBOC Order*, the Commission declined to establish a deadline for radio stations to convert to digital broadcasting, 22 FCC Rcd at 10351. Presently, radio stations may choose to commence IBOC digital operation pursuant to § 73.404 of the Commission's rules, 47 CFR 73.404, which requires that licensees provide notification to the Commission within 10 days of commencing IBOC digital operation. The January 29, 2010, *Order* allows eligible authorized FM stations to commence operation of FM digital facilities with digital effective radiated power (ERP) up to -14 dBc upon notice to the Commission on FCC Form 335-FM – Digital Notification. In addition, licensees must electronically notify the Media Bureau of any power increase in their FM digital ERP within 10 days of commencement using the same Form 335 – Digital Notification. However, use of the Form 335-FM for notification of commencement of FM hybrid digital operation, or notification of modification of FM digital operation, is currently limited to non-super-powered FM stations with digital ERP not exceeding -14 dBc and super-powered stations with digital ERP not exceeding -20 dBc.

Non-super-powered FM stations requesting authorization to operate with digital ERP between -14 dBc and -10 dBc, or super-powered FM stations requesting digital ERP in excess of -20 dBc are required to file an informal request using the Engineering STA Form prior to commencement of the increased power FM digital operation. Licensees submitting such a request must use the simplified method set forth in the January 29, 2010, Order to determine the station's maximum permissible FM digital ERP. In situations where the simplified method is not applicable due to unusual terrain or other technical considerations, the Bureau will accept applications for FM digital ERP in excess of -14 dBc on a case-by-case basis, when accompanied by a showing detailing the prediction methodology, data, maps and sample calculations.

The proposed rule changes may, in some cases, impose different reporting or recordkeeping requirements on FM radio stations, insofar as they would allow certain licensees to voluntarily operate with asymmetric digital sideband power. However, the information that would be reported is already familiar to broadcasters, and is similar to the current IBOC digital operation notification or authorization reporting requirements, so any additional burdens would be minimal. The Public Notice tentatively concludes that it would be expedient to modify Form 335-FM, currently used for Digital Notifications, to accommodate requests for increased digital power and/or operation with asymmetric digital sideband power.

E. Steps Taken to Minimize Significant Impact on Small Entities, and Significant Alternatives Considered.

The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four

alternatives (among others): (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities (5 U.S.C. 603(b)).

Operation of hybrid digital facilities by Commission licensees and permittees is voluntary. Likewise, use of asymmetric FM digital sideband powers would be limited to those licensees and permittees expressly seeking authorization for such operation. The proposal to permit use of asymmetric FM digital sideband powers thus would not impose any additional burden on FM broadcasters. In fact, for those FM broadcasters that choose to operate hybrid FM facilities, the proposal would confer a benefit. Currently, a significant number of FM stations are precluded from operating maximum permissible hybrid FM digital facilities. This occurs in the case of an FM station operating hybrid digital facilities that has a nearby FM station on one, but not both, of its two first-adjacent channels, thus limiting allowable digital power in both sidebands to a level that protects the sole limiting station. By permitting asymmetric FM digital sideband operation, such a station could increase to maximum permissible digital power on the sideband opposite the limiting FM station, thus achieving improved digital facilities and signal coverage. Because operation under the proposed rule is voluntary, and would only be undertaken by licensees and permittees that would realize a benefit from such operation, consideration of alternatives was not required.

**F. Federal Rules Which Duplicate, Overlap, or Conflict With, the
Commission's Proposals.**

None.

FEDERAL COMMUNICATIONS COMMISSION

Kris A. Monteith,
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